



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,546	06/07/2002	Rudy Federici	43252-200858	1488
26694	7590	05/13/2004	EXAMINER	
VENABLE, BAETJER, HOWARD AND CIVILETTI, LLP			KEENAN, JAMES W	
P.O. BOX 34385			ART UNIT	
WASHINGTON, DC 20043-9998			PAPER NUMBER	

3652

DATE MAILED: 05/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/069,546	Applicant(s) FEDERICI ET AL.	
	Examiner James Keenan	Art Unit 3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 12-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-10 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/27/02</u> . | 6) <input type="checkbox"/> Other: _____ |

1. Applicant's election of Group I and Species A in the paper filed 2/11/04 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). The mere assertion that the claims satisfy the unity requirements as a process and apparatus for carrying out the process is not considered a complete traversal because it fails to set forth these arguments with any specificity. It is also acknowledged that applicant has added language to claim 12 to make the Group II claims more similar to claims 1-11. However, even as amended, the claims are still properly restricted because the claims of the Group I invention do not require the grippers to operate by first individually removing wafers from the storage device and then passing them on to a different holding device. Group I also is not directed to storing wafers with respect to identification data thereof.

2. Claims 6 and 12-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species and invention, respectively, there being no allowable generic or linking claim.

3. The abstract of the disclosure is objected to because it does not commence on a separate sheet dedicated solely to the text thereof. Correction is required. See MPEP § 608.01(b).

4. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

5. The disclosure is objected to because of the following informalities: on pages 1 and 5, the reference to specific claim numbers should be deleted, as the content and numbering of patented claims will likely be different. Appropriate correction is required.

Art Unit: 3652

6. Claim 11 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim must depend from other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-5 and 7-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Independent claims 1, 9, and 10 set forth (with minor variations) that the "grippers can be moved together but actuated independently of one another". However, the specification and drawings fail to adequately explain how this can be accomplished. Although page 12 of the specification broadly recites that the individual grippers may be actuated via clutches, electric motors, or individual cylinders, applicant has failed to provide a detailed explanation of how this would actually work.

Furthermore, with respect to claims 4 and 5, it is recited that the grippers can be pivoted into a position in which they (presumably) grip and transport wafers. However, it is not clear how the grippers in the figure 3-5 embodiment (to which claims 4 and 5 are directed) actually grip wafers. Page 13 recites that the arm 46 can be rotated counterclockwise (line 5) such that the elements 49, 50 come into contact with the wafer

below diameter 54 (lines 8-9) to grip and lift the wafer (line 12). However, it is not seen how moving the arm counterclockwise would bring the elements into contact with the wafer to enable it to be gripped and lifted.

Further still, it is not understood how gripper element 51 is passively actuated to fix the wafer in the gripper. Finally, it is not understood why the gripper elements 49-51 in figure 5 appear to be different than those shown in figures 3-4, even though this is disclosed as the same embodiment.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-5 and 7-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 1-2, the parenthetical expression "semiconductor disks" as well as the phrase "or other disk-like substrates" fails to clearly set forth the metes and bounds of the invention;

in line 5, the phrase "is provided ..." does not grammatically follow the claim language;

and lines 6 and 9, "and/or" is vague.

In claim 8, line 2, "the travel path" lacks antecedent basis.

Claims 9 and 10 are indefinite for their recitation of the phrase "or other disk-like substrates" and "and/or" (claim 10).

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1, 2, 7, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Alessandri et al (US 5,054,834).

Alessandri et al show a wafer handling device comprised of a gripping device 9, 10 having a plurality of individually operated grippers such that any number of wafers can be selectively removed from or inserted into a storage device.

13. Claims 1-3 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Champet et al (US 4,958,982).

Champet et al show a wafer handling device comprised of a gripping device having a plurality of individually operated grippers 1 such that any number of wafers can be selectively removed from or inserted into and/or between storage devices P, N. The grippers are arranged on a common carrier 6 which can be moved parallel to the storage devices along a guide element (not specifically labeled but note col. 4. lines 6-12), as seen in figures 3-6.

Re claim 8, see col. 2, lines 52-62.

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3652

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 4, 5, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Champet et al.

Champet et al do not show the grippers to be pivoted between their empty and transport positions, although the linkage arms seen in figure 2 pivot to cause the movement of the grippers.

However, it would have been obvious for one of ordinary skill in the art at the time of the invention to have modified the apparatus of Champet et al by pivoting the grippers between the two positions thereof, such as by directly connecting the linkage arms to the grippers instead of the reciprocating guiding components 2, as this would simply be an alternate equivalent means of performing the same function in the same environment, and also would simplify the apparatus and reduce contamination by reducing the number of moving components.

Re claim 10, although Champet et al do not specifically state that the storage device includes a housing having an interior space with a plurality of locations for wafer containers and at least a portion of which is a clean room, the background of the invention as set forth in columns 1 and 2 refers to placing the wafers into a diffusion furnace and keeping the wafers free of contaminants, as well as mentioning various stations to which the wafers are transferred. It is well known in the art that this type of environment is generally provided in a clean room, and that such rooms often have

Art Unit: 3652

plural storage locations for wafer containers. It would have been obvious, therefore, for one of ordinary skill in the art at the time of the invention to have modified Champet et al such that the gripping device operated in a storage device within a clean room environment and having plural locations for storing wafer containers, as this would simply be the inclusion of well known and art recognized design expediciencies for processing wafers in a furnace.

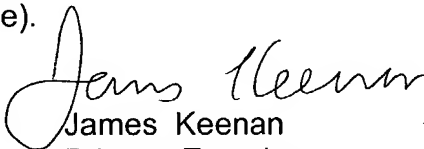
16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Keenan whose telephone number is 703-308-2559. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 703-308-3248. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3652

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


James Keenan
Primary Examiner
Art Unit 3652

jwk
5/11/04